SAFETY DATA SHEET

SUPER FOAM CHLOR (#1600)
Product ID: FP3250
Revised: 01-16-2023
Replaces: 06-25-2014

1. IDENTIFICATION

Product Identifier Used on the Label:	SUPER FOAM CHLOR (#1600)
Other Identifiers:	R11222
Product ID:	MIXTURE
Recommended Use:	No data available.
Restrictions on Use:	No data available.

Hydrite Chemical Co.
17385 Golf Parkway
Brookfield, WI 53045
(262) 792-1450

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency #: (414) 277-1311
CHEMTREC Emergency #: (800) 424-9300

2. HAZARD(S) IDENTIFICATION

GHS Classification(s):
Substance or mixture corrosive to metals Category 1
Skin Corrosion/Irritation Category 1B
Serious Eye Damage/Eye Irritation Category 1
Hazardous to the aquatic environment - Acute Category 1
Acute Toxicity - Inhalation Vapour Category 4

GHS Label Elements:

GHS Hazard Symbols:

Signal Word: Danger

Hazard Statements:
May be corrosive to metals.
Causes severe skin burns and eye damage.
Harmful if inhaled.
Very toxic to aquatic life.

Precautionary Statements:

Prevention:
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see First Aid on SDS or on this label).
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Collect spillage.

Storage: Store in a secure manner.
Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of in accordance with local, regional and international regulations.

Hazards not otherwise classified: May react with various food sugars to form carbon monoxide. Reacts with most metals to form explosive/flammable hydrogen gas. May react violently with water. Reacts vigorously or violently with many organic and inorganic chemicals such as: acids, acrolein, acrylonitrile, chlorinated hydrocarbons (e.g. 1,2dichloroethylene), chlorine dioxide, maleic anhydride, nitroethane, nitroparaffins, 2-nitrophenol, nitropropane, phosphorus, potassium persulfate, and tetrahydrofuran (containing peroxides).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms	CAS Number	% by Wt.
Potassium Hydroxide	1310-58-3	< 20 %
Sodium Hypochlorite	7681-52-9	< 5 %
Sodium Tripolyphosphate	7758-29-4	< 5 %
Dimethyldodecylamine Oxide	1643-20-5	< 5 %
Sodium Xylene Sulfonate	1300-72-7	< 3 %
Sodium Hydroxide	1310-73-2	< 3 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do. Do not permit victim to rub eyes. Do not attempt to neutralize with chemical agents. If necessary, continue flushing during transport to emergency care facility.

Skin Contact: If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. If skin feels slippery, caustic may still be present in sufficient quantities to cause rash or burn. Continue washing skin until slick feeling is gone. Discard footwear which cannot be decontaminated. Discard contaminated leather articles such as shoes and belt.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY. If using mouth to mouth, use rescuer protection (pocket mask, etc). Symptoms of pulmonary edema can be delayed up to 48 hours after exposure.

Ingestion: If swallowed: If fully conscious, drink a quart of water. DO NOT induce vomiting. CALL A PHYSICIAN IMMEDIATELY. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Do not give sodium bicarbonate, fruit juices or vinegar.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: CORROSIVE-Causes severe irritation and burns. May cause: corneal damage. impaired vision. eye damage. permanent eye damage. blindness.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Contact may cause: redness. swelling. dermatitis (inflammation of the skin). scab formation. ulceration. permanent skin damage. Effects from chronic skin exposure would be similar to those from single exposure and may include effects secondary to tissue destruction.

Skin Absorption: Material can penetrate to deeper layers of skin and corrosion will continue until removed. The severity of injury depends on the concentration and duration of exposure.

Inhalation: CORROSIVE-Causes severe irritation and burns. May irritate or damage: nose. mouth. throat. lungs. Vapors or mists may damage: respiratory tract. May cause: shortness of breath. wheezing. coughing. sneezing. choking. chest pain. ulceration and perforation of the nasal septum. impaired lung function. pulmonary edema. pneumonitis. death. Effects may be delayed.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. throat. stomach. gastrointestinal tract. May cause: nausea. diarrhea. vomiting (bloody). abdominal pain. bleeding. ulcerations. severe gastrointestinal damage. perforation of the intestinal tract. death. Blood loss through damaged tissue can lead to low blood pressure and shock. Effects from chronic exposure would be similiar to those from single exposure and may include effects secondary to tissue destruction. Aspiration into the lungs may cause chemical pneumonia and lung damage.

Indication of Immediate Medical Attention and Special Treatment Needed: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. This material will have corrosive effects in which case it may not be advisable to induce vomiting. Acute effects can include mucosal damage and severe laryngeal edema associated with corrosive agents. Maintain under observation for 48 hours due to the risk of pulmonary edema. Steroid therapy, if given early, has been reported effective in preventing pulmonary edema. The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Not combustible. For fires in area use appropriate media. For example: Water fog. Dry chemical. Alcohol resistant foam. Use water with caution. Contact with water will generate considerable heat and cause spattering if applied directly to potassium/sodium hydroxide.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable hydrogen gas. Fire or intense heat may cause violent rupture of packages. Contact with acids may generate sufficient heat to ignite nearby combustible material.

Hazardous Combustion Products: Corrosive vapors. Toxic fumes. Chlorine-containing gases. Metal oxides. Oxygen. Halogenated compounds. Hydrogen chloride. Chlorine. Sodium chlorate. Sodium oxides. Disodium oxide.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and

disperse vapors. Move containers from fire area if possible without hazard. Use water spray to cool fire-exposed containers, but avoid getting water into containers.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: CORROSIVE MATERIAL. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: Contain spills immediately with inert materials (e.g., sand, earth). Place in non-leaking containers for immediate disposal. CAUTION: This product may react violently with acids and water. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. For air release: Vapors may be suppressed by the use of a water fog. Contain all run-off water for treatment and/or proper disposal. Keep away from combustibles and easily oxidizable materials. Do not attempt to neutralize spilled materials. Toxic chlorine gas may be released. DO NOT use combustible materials such as sawdust.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other source of ignition. They may explode and cause injury or death. When mixing, slowly add to water to minimize heat generation and spattering. Do not add large quantities of water, excessive heat formation will cause boiling and spattering. Mixing this product with gross filth such as feces, urine, etc. or with ammonia, acids, detergents or other chemicals may release hazardous gases irritating to eyes, lungs and mucous membranes. CORROSIVE MATERIAL. Add product very slowly while stirring constantly. If product is added too rapidly or without stirring and becomes concentrated at the bottom of the mixing vessel, excessive heat may be generated resulting in dangerous boiling and spattering and possible immediate violent irruption of highly caustic solution.

Conditions for Safe Storage, Including any Incompatibilities: CORROSIVE MATERIAL. Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Do not store in aluminum container or use aluminum fittings or transfer lines. Highly corrosive to most metals with evolution of hydrogen gas. Never enter a pit or tank without following safety procedures-never alone, always with a lifeline and positive pressure supplied air. Contact of caustic potash cleaning solutions with food and beverage products (in enclosed vessels or spaces) can produce lethal concentrations of carbon monoxide gas. Do not freeze. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature. Avoid contact with combustible materials, wood and organic materials. DO NOT contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

Component	**Limits**
Sodium Hydroxide	2 mg/m3 TWA

ACGIH Exposure Guidelines:

Component	**Limits**
Potassium Hydroxide	2 mg/m3 Ceiling
Sodium Hydroxide	2 mg/m3 Ceiling

Note:

*Exposure Limit for Chlorine: 1 ppm Ceiling; 3 mg/m3 Ceiling (OSHA); 0.5 ppm TWA; 1 ppm STEL (ACGIH).

Appropriate Engineering Controls: Local exhaust ventilation, process enclosures, or other engineering controls are required when handling or using this product to avoid overexposure. Use local exhaust to control vapors, mists, or dusts. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly. NOTE: Where carbon monoxide may be generated, special ventilation may be required.

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles and a full face shield while handling this product. Wear a full-face respirator, if needed. Do not wear contact lenses.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Impervious. Chemical-resistant. Check gloves for leaks before use. Rinse and remove gloves immediately after use.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Full chemical suit. Rubber apron. Rubber boots. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Handle in accordance with good industrial hygiene and safety practice. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on the strength of chemical, material treatment and color of dyes. Fire resistant clothing treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta-aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Slight yellow.
Odor: Slight chlorine odor.
Odor Threshold: N.D.
pH: > 13 (as is)
Freezing Point (deg. F): N.D.
Melting Point (deg. F): N.D.
Initial Boiling Point or Boiling Range: N.D.
Flash Point: N.A.
Flash Point Method: N.A.
Evaporation Rate (nBuAc = 1): N.D.
Flammability (solid, gas): N.D.
Lower Explosion Limit: N.A.
Upper Explosion Limit: N.A.
Vapor Pressure (mm Hg): N.D.
Vapor Density (air=1): N.D.
Specific Gravity or Relative Density: 1.202 @ 25 C
Solubility in Water: Appreciable
Partition Coefficient (n-octanol/water): N.D.
Auto-ignition Temperature: No Data
Decomposition Temperature: N.D.
Viscosity: N.D.
% Volatile (wt%): N.D.
VOC (wt%): N.D.

VOC (lbs/gal): N.D.
Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: Oxidizer. Avoid other reducing agents, combustibles and organic materials. Corrosive to most metals. No dangerous reaction known under conditions of normal use.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions. Produces Chloroacetylene with chlorinated alkenes and heat. Reactions with various food sugars may form carbon monoxide.

Conditions to Avoid (e.g., static discharge, shock, or vibration): Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product. Contact with acid or incompatible materials may cause a violent reaction with evolution of heat. Product may react with some metals (ex.: Aluminum, Zinc, Tin, etc.) to release flammable hydrogen gas. Corrosive to steels at elevated temperatures. Contact of caustic potash cleaning solutions with food and beverage products (in enclosed vessels or spaces) can produce lethal concentrations of carbon monoxide gas. Avoid exposure to light. Avoid temperatures greater than 70 Deg. F. Product degrades more rapidly with increasing temperature.

Incompatible Materials: DO NOT USE sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Acids. Acrolein. Acrylonitrile. Chlorinated hydrocarbons. Chlorine dioxide. Maleic anhydride. Nitroethane. Nitroparaffins. 2-Nitrophenol. Nitropropane. Phosphorus. Potassium persulfate. Tetrahydrofuran. Organic nitro compounds. Explosives. Organic peroxides. Halogenated compounds. Chlorinated alkenes. Carbohydrates. Metals such as aluminum, zinc, tin, etc. Brass. Bronze. Oxidizing agents. Flammable liquids. Copper. Lead. Other alkali sensitive metals or alloys. Acetaldehyde. Can attack some forms of plastics. Sodium borohydride. Food sugars. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products. Do not enter such areas until they have been well ventilated and carbon monoxide and oxygen levels have been determined to be within OSHA acceptable limits. If carbon monoxide and oxygen levels cannot be measured, wear NIOSH-approved, self-contained breathing apparatus.

Hazardous Decomposition Products: Potassium dioxide. May react with certain metals to produce flammable hydrogen gas. Chlorine-containing gases. Reacts with acids to release poisonous chlorine gas. Sodium oxide. Hypochlorous acid. Oxygen. Hydrogen chloride. Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: CORROSIVE-Causes severe irritation and burns. May cause: corneal damage. impaired vision. eye damage. permanent eye damage. blindness.

Skin Contact: CORROSIVE-Causes severe irritation and burns. Contact may cause: redness. swelling. dermatitis (inflammation of the skin). scab formation. ulceration. permanent skin damage. Effects from chronic skin exposure would be similar to those from single exposure and may include effects secondary to tissue destruction.

Skin Absorption: Material can penetrate to deeper layers of skin and corrosion will continue until removed. The severity of injury depends on the concentration and duration of exposure.

Inhalation: CORROSIVE-Causes severe irritation and burns. May irritate or damage: nose. mouth. throat. lungs. Vapors or mists may damage: respiratory tract. May cause: shortness of breath. wheezing. coughing. sneezing. choking. chest pain. ulceration and perforation of the nasal septum. impaired lung function. pulmonary edema. pneumonitis. death. Effects may be delayed.

Ingestion: CORROSIVE-Causes severe irritation and burns. May cause damage to the: mouth. throat. stomach. gastrointestinal tract. May cause: nausea. diarrhea. vomiting (bloody). abdominal pain. bleeding. ulcerations. severe gastrointestinal damage. perforation of the intestinal tract. death. Blood loss through damaged tissue can lead to low blood pressure and shock. Effects from chronic exposure would be similiar to those from single exposure and may include effects secondary to tissue destruction. Aspiration into the lungs may cause chemical pneumonia and lung damage.

Numerical Measures of Toxicity:

Component	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Hydroxide	Rat: 284 mg/kg	No Data	No Data
Sodium Hypochlorite	Rat: 9 g/kg	Rabbit: > 20000 mg/kg	1H Rat: > 10.5 mg/L
Sodium Tripolyphosphate	Rat: 3120 mg/kg	Rabbit: > 4640 mg/kg	4H Rat: > 0.4 mg/L
Sodium Xylene Sulfonate	Rat: 1000 mg/kg	Rabbit: > 2000 mg/kg	No Data
Sodium Hydroxide	Rat: 325 mg/kg	Rabbit: 1350 mg/kg	No Data

Acute Toxicity Estimates (ATE):

Oral:	2118 mg/kg
Dermal:	112500 mg/kg
Inhalation Vapor:	11.1568 mg/L
Inhalation Dust/Mist:	11.1568 mg/L

Cancer Information:
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Asthma. Respiratory system disorders. Eye disorders. Cardiovascular disorders. Lung disorders. Dermatitis. Skin disorders.

Other: This material will affect all tissues with which it comes into contact. The severity of the tissue damage is a function of concentration, the length of tissue contact time, and local tissue conditions. After exposure, there may be a time delay before irritation and other effects occur.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: D002

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. Do NOT dump into any sewers, on the ground, or into any body of water. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORTATION INFORMATION

DOT (Department of Transportation):

Identification Number:	UN3266
Proper Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS POTASSIUM HYDROXIDE, SODIUM HYPOCHLORITE)
Hazard class:	8
Packing Group:	II
Marine Pollutant:	Marine Pollutant (Sodium Hypochlorite Solutions)
Label Required:	CORROSIVE
Reportable Quantity (RQ):	1000# (Potassium Hydroxide); 100# (Sodium Hypochlorite); 1000# (Sodium Hydroxide).

Note: This product is not regulated as a Marine Pollutant when transported in containers less than 119 gallons and shipped solely by air or land transportation.

15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards: Please see Section 2 of this SDS.

Regulated Components: Component	CAS Number	CERCLA RQ	SARA EHS	SARA 313	U.S. HAP	WI HAP	Prop 65
Potassium Hydroxide	1310-58-3	Yes	No	No	No	Yes	No
Sodium Hypochlorite	7681-52-9	Yes	No	No	No	No	No
Sodium Hydroxide	1310-73-2	Yes	No	No	No	Yes	No

***Prop 65 - May Contain the Following Trace Components:**

WARNING: This product can expose you to a chemical or chemicals as impurities in trace amounts that are known to the State of California to cause cancer and/or birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

Hazard Rating System
Health: 3
Flammability: 0
Reactivity: 1
* = Chronic Health Hazard

NFPA Rating System
Health: 3
Flammability: 0
Reactivity: 1
Special Hazard: None

SDS Abbreviations
N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: csh

Reason for Revision: Changes made throughout the SDS.

Revised: 01-16-2023
Replaces: 06-25-2014

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.